From the Electricity Networks Association

Cross-submission on the Commerce Commission's IM Review paper

Invitation to contribute to problem definition

4 September 2015

The Electricity Networks Association makes this submission along with the explicit support of its members listed below.

Alpine Energy Ltd
Aurora Energy Ltd
Buller Electricity Ltd
Centralines Ltd
Counties Power Ltd
Eastland Network Ltd
Electra Ltd
EA Networks Ltd
Electricity Invercargill Ltd
Horizon Energy Distribution Ltd
Mainpower NZ Ltd
Marlborough Lines Ltd
Nelson Electricity Ltd
Network Tasman Ltd
Network Waitaki Ltd
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Powerco Ltd
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The Power Company Ltd
Top Energy Ltd
Unison Networks Ltd
Waipa Networks Ltd
WEL Networks Ltd
Wellington Electricity Lines Ltd
Westpower Ltd

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1. Introduction and Summary

1.1 Introduction

1. The Electricity Networks Association (ENA) appreciates the opportunity to provide a cross-submission in response to submissions made on the Commerce Commission's (the Commission's) consultation paper on the problem definition for the Input Methodologies review[1] (the problem definition paper). The ENA represents the 29 electricity network businesses (ENBs) in New Zealand. This cross-submission is on behalf of all but Vector, which is lodging its own cross-submission.

2. This cross-submission responds to certain issues raised by the following submitters:

a) The Major Electricity Users' Group (MEUG).

b) The New Zealand Institute of Economic Research (NZIER), on behalf of MEUG.

c) Ireland, Wallace and Associates Ltd (IWA), on behalf of MEUG.

3. The ENA's contact person for this submission is:

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1.2 Summary

4. MEUG's submission raised concerns that the cost of capital (particularly the percentile) is too high, particularly given (alleged) declining investment needs. The ENA notes that the question of the WACC percentile was addressed in the Commission's decision in 2014 and MEUG does not appear to have put forward any reasoning to justify reopening that decision. Further, capital expenditure tends to be cyclical. It does not follow that the WACC should vary depending on the level of capex required within the regulated industry at different points in time.

5. MEUG's submission suggested the IMs may require more complexity to avoid anti-competitive behaviour regarding services at the boundary of the regulated business and the cost allocation IM may permit too many costs to be allocated to consumers of regulated services. The ENA submits if there are concerns regarding anti-competitive behaviour (and we are not aware of such practices) Part 4 regulation is probably not the right place to address them. Also, we are not aware of evidence that costs are being unduly allocated to the regulated businesses, or that the allocation of costs to different activities has been outside the incremental cost – standalone cost range.

6. MEUG's submission also stated that information disclosure reporting is opaque and not conducive to consumers being able to assess the effectiveness of the Part 4 regime. The ENA agrees the disclosure requirements are complex and would support them being streamlined. The Commission's Summary and Analysis workstream also has a role to play.

7. MEUG's submission, supported by IWA's report, has put forward a proposal to use Black's discounting rule (BDR) to address certain issues regarding the simplified Brennan-Lally Capital Asset

[1] Commerce Commission, Input Methodologies review: Invitation to contribute to problem definition, 16 June 2015

Pricing Model (CAPM). We do not consider the proposed BDR would be a credible addition to the IMs. It is clearly not designed for a regulatory context, would be extremely difficult to implement in practice (unlike with the CAPM, there is little previous research with which to inform its implementation), would not fit with the wider IM framework, and would be unlikely to provide a reasonable return to investors

8. NZIER's report, on behalf of MEUG, sets out a thoughtful discussion of some potential issues facing the electricity industry. The ENA agrees with some of NZIER's points. However, their suggested solutions are unconvincing and many of the issues raised do not relate to the IMs themselves and are outside the Commission's jurisdiction. We also consider some of their concerns regarding current practices are unnecessary. For example:

a) NZIER's report notes that different ENBs have different views on emerging technologies and are responding in different ways. We are not sure that is a problem. Given the uncertainty and the divergence in the characteristics of ENB networks, some variance in views and approaches is to be expected. We anticipate ENB views will generally converge over time.

b) NZIER's report suggests the use of scenarios, thresholds and tests to determine how regulations will change in response to technology changes. The ENA notes these may not provide the certainty that is the purpose of input methodologies.

c) NZIER's report raises a series of issues relating to efficient network pricing in the face of technology change. We agree these are mostly relevant considerations, but regulatory responsibility for ENB pricing sits with the Electricity Authority. We support the Commission co-ordinating its workstreams with the Authority where relevant.

d) NZIER's report notes that emerging technologies may make it harder to distinguish between regulated and unregulated services provided and seeks to draw a distinction between natural monopoly and competitive assets. We submit that ENBs should be able to deliver lines services by using emerging technologies where that is a cheaper, or otherwise better, overall solution. The purpose of the investment is what matters and we consider the IMs are workable in this regard.

e) NZIER's report suggests a "notionally efficient distributor" could be used as a basis for setting prices. We consider that it would be extremely challenging to develop a notional ENB that could be applied to all other ENBs, which have very variable characteristics. Also, the Commission is prohibited from using comparative benchmarking on efficiency to set prices, so it is unclear how this approach could be implemented.

2. Response to MEUG and IWA

2.1 Complexity and compliance costs

9. The problem definition paper discussed potential options for reducing complexity and compliance costs within the IMs. The ENA has agreed this is a useful focus of the review. MEUG's submission noted that:[2]

> *"It's more likely more complexity will be needed to manag[e] possible anti-competitive behaviour or dual till type opportunities arising from emerging technologies creating new markets for alternatives to distribution line services."*

10. The ENA submits if there are concerns regarding anti-competitive behaviour (and we are not aware of such practices) Part 4 regulation is probably not the right place to address them. By definition, Part 4 regulation applies to services where there is little or no competition (currently or prospectively). If anti-competitive activity is alleged; that is best dealt with through the Commission's powers in Part 2 of the Commerce Act.

11. MEUG's submission also stated:[3]

> *"Cost allocation based on the capital investment employed may not reflect Board and senior management time on building non-regulated businesses as a result of emerging technologies. MEUG also believes the ex post financial reporting of regulated and nonregulated businesses is opaque and not conducive to consumers being able to reasonably assess the effectiveness of the Part 4 regime. This problem and the uncertainty of whether there is a material transfer of risk to the regulated business will increase as distributors diversify into unregulated businesses."*

12. The ENA agrees the information disclosure requirements are complex and the volume of data that is required can make it challenging for interested persons to assess whether the purpose of Part 4 is being met. We would support a streamlining of requirements in this regard. The Commission's Summary and Analysis[4] workstream also has a role to play.

13. MEUG's submission otherwise seems to be suggesting that the current IMs permit regulated suppliers to allocate too many costs to the regulated business. We are not aware of evidence to support this view or that the allocation of costs to different activities has been outside the incremental cost – standalone cost range. We consider the cost allocation IM to be appropriate. As discussed below in relation to NZIER's report, it is important for the regulation to address the service that is provided, not the business as a whole.

2.2 Regulatory Cost of Capital

14. The problem definition paper discussed issues relating to the cost of capital for regulated businesses, including issues raised by the High Court such as the WACC percentile and the option of applying a split cost of capital.

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[2] MEUG, Submission on Input Methodologies review – Invitation to contribute to problem definition, 19 August 2015, paragraph 23. (MEUG)

[3] MEUG, paragraph 24.

[4] Commerce Act 1986 Section 53B(2)(b) requires the Commission to publish summary and analysis of disclosed information for the purpose of promoting greater understanding of the performance of individual regulated suppliers, their relative performance and the changes in performance over time.

15. MEUG's submission stated:[5]

> *"there is still a problem in understanding why Transpower and distributors have a WACC set at the 67th rather than 50th percentile when we know the capital investment needs are not increasing"*

16. The ENA notes that the question of the WACC percentile was addressed in the Commission's decision in 2014 and MEUG does not appear to have put forward any reasoning to justify reopening that decision. As noted in our previous submission,[6] we do not consider there are grounds to justify reopening the WACC percentile and a split cost of capital would not be desirable due to its potential to distort investment, increase the risk of under-investment and increase administration costs.

17. Further, capital expenditure tends to be cyclical. It does not follow that the WACC should vary depending on the level of capex required within the regulated industry at different points in time. Instead, the WACC should be set at a level sufficient to incentivise investment and provide a reasonable return at all times. Even where total capex required over a regulatory period is lower than the previous regulatory period, some investment is still required and it is necessary to incentivise that investment.

2.3 Black's Discounting Rule

2.3.1 Overview

18. MEUG's submission supported the use of the BDR, as a cross-check to address challenges with implementing the CAPM in practice.[7] IWA, on behalf of MEUG, has produced a report providing some information about the BDR.[8]

19. At a high level, we note there are numerous potential alternatives to (and/or cross-checks for) the CAPM. Many of these have at least some theoretical or empirical merit. As discussed in our previous submission, we consider that there may be value in reviewing the use of the SBL-CAPM to test whether a better approach is available.[9]

20. We note that reasonableness checks have formed part of the Commission's process for determining the WACC IM. We agree this is good practice. However, using the BDR would be a step further than the current practice – it would involve a cross-check specified in the WACC IM itself.

21. We do not consider the proposed BDR would be a credible addition to the IMs. It is clearly not designed for a regulatory context, would be extremely difficult to implement in practice (unlike with the CAPM, there is little previous research with which to inform its implementation), would not fit with the wider IM framework, and would be unlikely to provide a reasonable return to investors.

2.3.2 What is the Black's Discounting Rule?

22. The BDR is not another formula for calculating the cost of debt or cost of equity. It is therefore not able to be used as a direct replacement for the CAPM. Rather, the BDR is an alternative approach

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[5] MEUG, paragraph 25.

[6] ENA, Response to the Commerce Commission's Input Methodologies review paper: Invitation to contribute to problem definition, 21 August 2015, paragraphs 170 and 173 (ENA problem definition submission).

[7] MEUG, paragraphs 17-18.

[8] IWA, Input Methodology Review: Black's Simple Discount Rule a cross check on the IM cost of capital, 19 August 2015. (IWA)

[9] ENA problem definition submission, paragraph 162.

to undertaking a discounted cash flow (DCF) valuation – it is a method for adjusting future cash-flows so they can be discounted at the risk free rate. The use of the BDR in a valuation setting avoids the need to estimate a WACC to use as the discount rate.

23. We have reviewed the literature relating to the BDR. There is only a limited amount available – it does not appear to have received much attention from academic or financial interests. The literature that is available discusses using the BDR in the context of a DCF valuation. Other than IWA's report for MEUG, we are not aware of it being discussed elsewhere in a regulatory context.

24. We submit that this lack of academic review and research underpinning the BDR, particularly in a regulatory context, should make the Commission extremely cautious about including it in the IMs. The BDR was clearly not designed for a regulatory application. In contrast, the CAPM is supported by a very large volume of research and empirical evidence and it is widely used by regulators and practitioners globally. Using the CAPM is undoubtedly the more orthodox approach, and clearly has the greatest body of research and experience to inform its application in practice.

2.3.3 How could the Black's Discounting Rule be implemented?

25. MEUG and IWA do not seem to be suggesting that the BDR replace the CAPM as the method for determining the return on capital. Indeed, our initial view is that this would not be possible. Instead, the proposal seems to be that the BDR is used as a cross-check on the Maximum Allowable Revenue (MAR) that is determined using the Commission's WACC IM.

26. MEUG and IWA have not demonstrated that the BDR could be applied as an IM. In particular, they have not fully articulated how the return on capital building block should be adjusted, or how the cross-check should be undertaken and how the price path should change in response to it.

27. Implementing the BDR would require the Commission to adjust the modelled return on capital building block of a regulated supplier to that which would occur if the market return equalled the risk-free rate. To do this requires estimating the probability distribution of the return on capital. This is reasonably difficult to do in a standard DCF valuation (with forecast net cash flows being the item which is adjusted). We consider that it would be prohibitively challenging in a regulatory context.

28. IWA's report sets out some of the items which would need to be considered to probability-weight the return on capital (using Transpower-specific values). The report struggles to provide potential values for the effect of each item, which indicates how difficult this approach would be for the Commission in practice. The use of low-cost industry-wide values in the DPP, rather than business-specific forecasts, makes the consideration of a probability-weighted adjustment even more challenging. Our impression is that adjusting the return on capital would be much harder than calculating the WACC parameters using the standard methods set out in the IMs.

29. The key argument provided by MEUG in favour of using the BDR[10] is that the parameters of the CAPM are difficult to estimate, and using the BDR means the WACC parameters do not need to be estimated. We note that if the BDR is used a cross-check, the WACC will still be used to initially determine MAR, and hence the WACC parameters will still need to be estimated.

30. The IWA report also does not make it clear how the cross-check would work in practice. In particular:

a) It is not clear what items should be compared as part of the cross-check. The only comparison of values made in the IWA paper is between the return on capital and the

[10] MEUG, paragraph 18.

'adjusted' return on capital. The nature of the approach (setting the return equal to the risk-free rate) means the latter will always necessarily be lower, and this comparison provides little relevant information as to the reasonableness of the WACC or the MAR series. We are unaware of any other literature which can help us assess how this cross-check could work in a regulatory context.

b) Assuming a relevant comparison is identified (i.e. item (a) above is resolved), it is not clear what happens, or should happen, if the BDR result differs from the MAR.

c) There is a circularity in the proposal: the BDR is meant to be used for discounting fixed cash-flows, but the proposal is to use it as a cross-check to inform the size of those cash-flows.

d) It appears the intention is to use the BDR as a cross-check to the MAR, but the MAR is not specified in the IMs. So it would appear difficult to include a cross-check on MAR in an IM.

e) There is no MAR in the information disclosure determinations (IDDs), so it is unclear how this would or could be applied in the IDDs.

2.3.4 What would the effect of using the BDR be?

31. Our interpretation of the rule is that it effectively indicates the WACC should be set equal to the mid-point estimate of WACC. The probability-weighted adjustment to the return on capital building block reflects an adjustment from the central estimate of the market return to the risk-free rate – the corresponding difference in discount rate is from the central estimate of the WACC to the risk-free rate. Our interpretation is that a return on capital which is consistent with the BDR should therefore be consistent with the central estimate of the WACC.

32. It seems to us that this is an attempt to re-open the debate regarding the 50th percentile by a different route. We do not consider that is credible and note that IWA and MEUG have not addressed the effect using the BDR as a cross-check would have given the well-established asymmetric risks of under-investment.

3. Response to NZIER

3.1 Overview

33. NZIER has produced a report on behalf of MEUG that sets out a discussion of some potential issues facing the electricity industry. The ENA agrees with some of what NZIER's report says in terms of the "problem definition". However, we find the suggested solutions unconvincing and note that many of the issues raised do not relate to the IMs themselves. NZIER's report raises issues relating to the Commerce Act, the methodologies for setting price-quality paths, information disclosure requirements, pricing methodologies and industry structure, which are connected to but not directly relevant for this review.

3.2 Impact of emerging technologies

3.2.1 The scale of the impacts

34. NZIER's report puts forward a clear view that emerging technologies in the electricity sector will have a profound effect on suppliers and consumers. For example:[11]

> *"Declining demand growth for energy, climate change concerns, strong growth of renewable local generation of electricity, energy storage systems and demand management, as well as the use of smart technology in the operational management of grids have all combined to jump start what is now regarded as potentially the most profound changes to the energy industries since the initial development of the networks."*
>
> *"These changes appear to be neither short term nor cyclical. They are structural, long term and are changing the economics of the energy system."*

35. The ENA agrees that emerging technologies could have a material impact. As noted in our previous submission, the precise nature, pace and scale of the impacts are still subject to debate and it seems unlikely that certainty regarding these impacts will emerge during the course of this IM review. While the scenario painted by NZIER is a possible outcome, it is not the only one.

36. NZIER's report also notes that:[12]

> *"different groups of consumers have different levels of capacity to access emerging technology and reduce their exposure to EDB charges. Those consumers that are less able to reduce their reliance on the network are exposed to an increased share of the cost of underused assets"*

37. The ENA agrees with this view and put forward a suggestion in our previous submission regarding re-balancing cash-flows to reduce the impact on the group of consumers who are less able to access emerging technologies.

3.2.2 Different ENB approaches to emerging technologies

38. NZIER's report notes that different ENBs have different views on the implications of the emerging technologies trend:[13]

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[11] NZIER, paragraphs 37-38.

[12] NZIER, paragraph 6.

[13] NZIER, paragraph 44.

"It appears that not all EDB's are in the same place in this regard. [i.e. in relation to the impacts of emerging technologies] Some, such as Orion seem to be saying that they believe that the future will be very much like the past and that they can accommodate change regardless. Other such as Vector are actively embracing technical change and have lines of business that sell and install PV systems including Tesla storage batteries. Transpower is actively looking to demand side response as a technique to manage network investment but many EDB's appear to be not especially engaged or have different stages of technical and demand side developments in process."

39. The ENA submits that new technologies are likely to affect different ENBs at different rates, which is not surprising given demographic, scale and geographic variations across networks. The value of emerging technologies is also likely to be affected by growth/capacity pressures on different networks. It is therefore also not surprising that ENBs have a range of views of the likely impact of emerging technologies. We can expect views of the impact and implications of the changes to converge over time, although there may still be some differences in impacts in different geographical locations.

40. It is also important to recognise that the technologies that are emerging now are not the first demand management technologies that have been seen in the New Zealand energy sector. ENBs have actively invested in and provided demand response initiatives for many decades (e.g. hot water load control) and prices are lower for consumers as a result. In a similar way, ENBs can be expected to adopt new technologies that deliver positive consumer outcomes as they become cost effective and reliable.

41. NZIER's report goes on to raise concerns that some ENBs are planning to invest in a way that may not reflect the impact of emerging technologies:[14]

"[there is] a mismatch between supplier plans for network investment and the flattening of electricity demand as well as the lack of evidence of the contribution of investment to network reliability or consumer willingness to pay for reliability."

42. We disagree there is a lack of evidence on network reliability or consumer willingness to pay. ENB Asset Management Plans (AMPs) contain substantive information regarding the reliability impacts of investments and ENBs consult with consumers regarding price-quality trade-offs. AMPs are also dynamic documents – they are updated annually based on research and observed trends. ENBs are currently gathering information regarding emerging technologies and testing scenarios. As technologies and or demand changes we can expect to see any changes that are material to ENB investment requirements reflected within the AMPs. It is also important to recognise that there is a difference between demand and through-put. Solar PV, for example, may reduce through-put, but may have little to no impact on peak demands or demand growth.

3.2.3 Potential implications for the IMs

43. NZIER's report does not claim to have a clear view of how the IMs should change in response to emerging technologies. However, it submits that:[15]

"the Commission may want to consider outlining a set of principles about how it will consider allocation of the costs and risks of disruptive change between 'monopolies' and consumers and also perhaps, a materiality threshold for considering the effects of disruptive change within the IM's."

"The Commission may wish to [consider]:

[14] NZIER, paragraph 88.

[15] NZIER, paragraph 62.

- *the assumptions about demand growth in EDB investment plans and requesting specific comment on the planning assumptions for disruptive technology, or sensitivity analysis around the investment requirements*
- *scenarios for how the risks and costs of stranded or underemployed assets should be allocated between network service providers and consumers.*
- *what tests the Commission would apply to determine if EDB investment in disruptive technologies would or would not be within the scope of the regulated asset base."*

44. NZIER's report considers that "[c]ertainty for regulated networks as a Part 4 objective sits uncomfortably with the system environment that we have described here". NZIER also acknowledge:[16]

> *"It is not clear whether the current IMs will promote or hinder the delivery of consumer benefits from these [emerging technology] changes."*

45. The ENA agrees that the use of scenarios, thresholds and tests may not provide the certainty that is the purpose of input methodologies as specified by legislation.[17] If these scenarios or tests would indicate a level of disruption beyond which ENBs would not recover the costs of their investments, that would be a significant change to the regulatory framework and a significant increase in the risk profile of ENBs, even if those thresholds were not reached in the near term. Substantial capital investment would be difficult to justify in such circumstances.

46. We also note that there are already requirements[18] for ENBs to publish, in their Asset Management Plans, details of their assumptions regarding demand forecasts and the impacts of distributed generation and the availability of non-network solutions. The Commission could perhaps require specific commentary regarding emerging technologies to also be included in the AMPs, although where an ENB sees emerging technologies as material this will already be discussed. In any case, this is a matter for information disclosure rather than the IMs.

3.2.4 Potential implications for ENB pricing

47. NZIER's report also considers that emerging technologies will have implications for ENB pricing:[19]

> *"emerging technology could change the use of the distribution network so that it is peakier but with lower energy throughput. This will aggravate the current misalignment between the structure of network costs (mainly the fixed costs of providing peak capacity) and the mix of charges (mainly variable related to energy delivered) that EDB's use to recover those costs."*
>
> *"the price paths do not actually signal the costs to the consumer of accessing regulated asset base because EDBs have applied different mixes of fixed charges (option to access) and variable charges based on use."*

48. The ENA considers that changing pricing strategies is a valid response to changes in technology use by consumers. The ENA also tends to agree that current network costs and prices could be better aligned. However, any mis-alignment is influenced by regulations that are outside the remit of the Commerce Commission. The ENA and the Electricity Authority are undertaking workstreams to improve the efficiency of ENB prices and seek to remove regulatory barriers to efficient pricing. We encourage the Commission to be supportive of such workstreams and to co-ordinate its relevant programmes of work with the Electricity Authority.

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[16] NZIER, page 11.

[17] Commerce Act 1986, section 52R.

[18] Electricity Distribution Information Disclosure Determination 2012, Schedule A.

[19] NZIER, paragraphs 5-6.

3.2.5 Boundary between regulated and unregulated activities

49. NZIER's report notes that emerging technologies may make it harder to distinguish between regulated and unregulated services provided by ENBs:[20]

> *"There will be a time of transition where part of the EDB business will be more 'natural monopoly' and part will be outside that definition but not necessarily part of a competitive market."*
>
> *"These changes will make it harder for the IM approach to reliably separate the assets and costs of EDBs into monopoly activities that require regulation and activities that are subject to competition and do not require regulation. This issue cannot be resolved by tweaking the IMs"*

50. We consider the starting point for this debate is what constitutes electricity lines services – the conveyance of electricity by line. It is unlikely to be in consumers' long-term interest to take an overly narrow interpretation of this term. Where ENBs could deliver equivalent services, at the required quality standard, to consumers using traditional network assets or newer emerging technologies it is in consumers' interest to enable ENBs to utilise the cheapest overall solution. The cheapest solution could well be the emerging technology, even if that technology is also able to be utilised in a competitive market setting. The purpose of the investment is what matters and we consider the IMs are workable in this regard. It is also relevant to note that, under section 107 of the Electricity Industry Act 2010, ENBs are able to use alternative solutions to supply consumers where those consumers agree. This relates to ENB's obligations to maintain supply to pre-1993 connections, but is indicative that ENBs are able to use alternative technology sources to supply their consumers.

51. We do not believe it would be sensible to prevent ENBs from delivering lines services by using technologies on the grounds that they may also be used as competitive products – doing so may lead to inefficient and more expensive outcomes. Overall, it is important for the regulation to address the service that is provided, not the business as a whole.

3.3 ENB efficiency

52. NZIER's report considers that the efficiency of the operations of regulated suppliers should be an important consideration of the IM review:[21]

> *"the secondary focus of this review should be whether the IM's are delivering network services in an efficient manner and are appropriate when thinking about productivity improvements from existing networks and investments in innovation. That is - it is efficiency, optimal network performance and services for consumers that matter more going forward"*

53. The ENA agrees the IMs should seek to incentivise efficient operations of regulated suppliers. The ENA submits that a sound method for improving efficiency is to provide good incentives for regulated suppliers to consistently strive to improve their efficiency over time and thus reveal their efficient level of expenditure. The Commission has made progress in this regard by recently expanding the Incremental Rolling Incentive Scheme (IRIS). We consider a useful focus of this IM review would be to ensure the IRIS is effective; this would involve addressing the current issue regarding the certainty of the IRIS recoverable cost when moving from a DPP to a CPP and ensuring the IRIS is understood by the regulated suppliers it affects. More broadly we encourage the Commission to ensure its Summary and Analysis workstream can identify areas of good

[20] NZIER, paragraphs 62 and 85.

[21] NZIER, paragraph 12.

performance and high efficiency that other regulated firms can learn from as they seek to improve their operations.

54. NZIER's report goes on to suggest a "notionally efficient distributor" could be used as a basis for setting prices:[22]

> *"Defining an efficient distribution network would provide a baseline revenue cap for the wider network that would then be allocated across whatever networks are required to manage energy distribution regionally. The current IMs would not fit well with this type of thinking"*
>
> *"An interpretation off the objectives for Part 4 suggests to us that consumers should only pay the costs that an efficient electricity distribution industry would charge. This 'notionally efficient' distributor should be the benchmark against which the current structure is measured… One option is to use the notionally efficient distributor as the overall revenue/price cap."*

55. We note that in New Zealand the Commission is prohibited from using comparative benchmarking on efficiency to set starting prices, rates of change, quality standards or incentives to improve quality of supply.[23] It seems that NZIER are proposing to move away from setting prices based on building blocks and towards prices based on a theoretical network business. We agree the current IMs would not fit well with this approach. Even if the Act permitted this approach, it would be challenging to develop a single notionally efficient distributor that could act as the benchmark for all (or even all non-exempt) ENBs, given the very different characteristics of the networks across the country.

56. Further, NZIER's report suggests the number of ENBs should be rationalised.[24] We note NZIER provides no evidence to support a claim that ENBs are inefficient and, in any case, the structure of the electricity industry is outside of the scope of this review. The ENA has previously submitted that the Commission needs to look at specific incentives for mergers or acquisitions as a five-year timeframe is likely to be inadequate in providing for merger synergy gains to be realised.

3.4 Regulatory Cost of Capital

57. Similar to the submission of MEUG, discussed above, NZIER's report considers that:[25]

> *"the WACC appears to be too high for both Transpower and the EDBs for the risk profiles of these businesses"*
>
> *"Without change to the allocation of risk and possibly a review of the WACC IM, the current arrangements maintain inappropriate incentives to continue to add assets to the RAB, some of which could likely be used to provide competitive services outside of the RAB. This just increases the offset of risk onto consumers."*

58. The aspect of the WACC that addresses the systematic risk of the regulated suppliers is the asset beta. We expect this parameter will be considered as part of this IM review. However, we have seen no analysis from NZIER that would substantiate the view that the asset beta should be lower or calculated using a different set of comparator companies.

59. We also find it difficult to reconcile these views of NZIER with its remarks elsewhere regarding emerging technologies and the significant impact they could have on ENBs. It seems that emerging technologies would increase, not reduce, ENB risk profiles and make the current WACC (already low) less useful in terms of incentivising investment. As such, we are not convinced the current

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[22] NZIER, paragraphs 107-108.

[23] Commerce Act 1986, Section 53P(10).

[24] NZIER, pages 28-29.

[25] NZIER, paragraphs 8 and 59.

framework provides excess incentives to invest in the current environment of emerging technologies. In fact, the opposite is likely to be the case.

3.5 Returns based on capacity of assets used

60. NZIER's report also commented: [26]

> *"Short term use of the distribution network capacity for different periods for different types of services suggests to us that pricing could be time based, Time of Use under a services specific structure that reflects the performance and quality of the capacity service that the consumer requires.* ***For example the capacity service provider, including the network business, only gets paid for the capacity that is actually used****."*
> *[emphasis added]*

61. It is not entirely clear to us what NZIER is suggesting in the emphasised comment, but if they are proposing an arrangement where only utilised capacity is paid for, we note this would have a number of undesirable effects, including:

a) If this was applied to historical investments it would amount to a retrospective attempt to prevent recovery of investments made under a different regime. When existing assets were built there was no indication that only the utilised portion would be paid for. This would breach the expectation of earning at least a normal return and strongly undermine investment incentives.

b) If ENBs did invest under this scenario, they would be incentivised to build the lowest possible increment of capacity at each investment to minimise the risk of under-recovery. This would not be the most efficient approach – efficiencies can be obtained by making somewhat lumpy investments to cater for reasonably expected future demand.

[26] NZIER, paragraph 78.